```
     (FILE 'HOME' ENTERED AT 11:49:13 ON 23 JAN 2006)
     FILE 'REGISTRY' ENTERED AT 11:49:25 ON 23 JAN 2006
                E POLYACRYLATES
                E POLYACRYLATE/CN
L1              4 S E4 OR E5 OR E6 OR E7
                E POLYURETHANE/CN
                E POLYSTYRENE/CN
L2              1 S E3
                E POLYETHER/CN
                E POLYVINYLALCOHOL/CN
L3              7 S E5 OR E6 OR E7 OR E8 OR E9 OR E10 OR E11
                E POLYETHYLENE/CN
L4              1 S E3
                E POLYPROPYLENE/CN
L5              1 S E3
                E POLYETHYLENE OXIDE
                E POLYETHYLENE OXIDE/CN
                E POLYVINYLPYRROLIDONE/CN
L6              1 S E3
     FILE 'HCAPLUS' ENTERED AT 11:53:43 ON 23 JAN 2006
L7           2975 S (PROSTHESIS OR PROSTHESES OR PROSTHETIC#) AND JOINT#
L8            663 S ARTIFICIAL JOINT#
L9         248145 S POLYACRYLATE? OR POLYSTYRENE OR POLYETHER?
L10         16152 S POLYVINYLALCOHOL OR POLYVINYL ALCOHOL
L11        336166 S POLYETHYLENE
L12        158967 S POLYPROPYLENE
L13         12065 S POLYETHYLENEOXIDE? OR POLYETHYLENE OXIDE?
L14         15566 S POLYVINYLPYRROLIDONE OR POLYVINYL PYRROLIDONE
L15        287828 S CROSSLINK? OR CROSS LINK?
L16           383 S CARBON BACKBONE#
L17        352264 S L1 OR L2 OR L3 OR L4 OR L5 OR L6
L18          1014 S (L7 OR L8) AND (L9 OR L10 OR L11 OR L12 OR L17)
L19            17 S L15 AND L16
L20             0 S L18 AND L19
L21           138 S L18 AND L15
L22            18 S L18 AND (L13 OR L14)
     FILE 'MEDLINE, EMBASE, BIOSIS' ENTERED AT 12:03:48 ON 23 JAN 2006
L23        32664 S L1 OR L2 OR L3 OR L4 OR L5 OR L6
L24         3176 S L18
L25            9 S L15 AND L16
L26            0 S L24 AND L25
L27            3 S L24 AND (L13 OR L14)
L28         3176 S (L7 OR L8) AND (L9 OR L10 OR L11 OR L12 OR L23)


L22  ANSWER 1 OF 18  HCAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2005:696705  HCAPLUS
DOCUMENT NUMBER:          143:179619
TITLE:                    Drug delivery to a  ***joint***  comprising a
                          polymeric or non-polymeric carrier
INVENTOR(S):              Hotchkiss, Robert N.; Koski, John A.
PATENT ASSIGNEE(S):       Orthobiologica, Inc., USA
SOURCE:                   PCT Int. Appl., 60 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
```

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005070333	A1	20050804	WO 2005-US999	20050113

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2005152949	A1	20050714	US 2005-35375	20050113

PRIORITY APPLN. INFO.:

US 2004-536135P	P	20040113
US 2004-566737P	P	20040429

AB A method of intra-articular drug delivery may include selecting an attachment zone in a synovial ***joint*** and affixing a drug release device in the attachment zone. The drug release device comprises a base affixable in the attachment zone, a sustained-release drug carrier, and a drug. The device is positioned so that it releases the drug into the synovial fluid of the synovial ***joint*** , and so that agitation of the synovial fluid facilitates elution of the drug from the drug release device. For example, a sustained-release device included a polymeric matrix or liposome from which drug was released by diffusion and/or degrdn. of the matrix. The release pattern is usually principally detd. by the matrix material, as well as by the percent loading, method of manuf., type of drug being administered and type of device, for example, microsphere. A major advantage of a biodegradable controlled release system over others was that it did not require the surgical removal of the drug depleted device, which was slowly degraded and absorbed by the patient's body, and ultimately cleared along with other sol. metabolic waste products. Sustained-release compns. include poly(glycolic acid), poly(lactic acid), polyester, collagen, a hydrogel, and hyaluronic acid. Exemplary therapeutic agents include bupivacaine, lidocaine, dexamethasone, a nonsteroidal antiinflammatory agent, an antibiotic, an immunomodulator, a bone morphogenic protein, a cytokine, a growth factor, and a vascular endothelial growth factor.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT ***Joint*** , anatomical
(arthroplasty; articular sustained-release drug delivery to synovial ***joint***)

IT Anesthetics
Antibiotics
Hydrogels
Immunomodulators
(articular sustained-release drug delivery to synovial ***joint***)

IT Bone morphogenetic proteins
Collagens, biological studies
Cytokines
Growth factors, animal
Polyamides, biological studies
Polyanhydrides

Polycarbonates, biological studies
Polyesters, biological studies
Polysaccharides, biological studies
Polysiloxanes, biological studies
Shellac
Waxes
Zeins
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(articular sustained-release drug delivery to synovial ***joint***)

IT Cartilage
(articular; articular sustained-release drug delivery to synovial ***joint***)

IT Polyesters, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(caprolactone-based; articular sustained-release drug delivery to synovial ***joint***)

IT Synovial fluid
(drug release in; articular sustained-release drug delivery to synovial ***joint***)

IT Polyesters, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hydroxycarboxylic acid-based; articular sustained-release drug delivery to synovial ***joint***)

IT Drug delivery systems
(implants, controlled-release; articular sustained-release drug delivery to synovial ***joint***)

IT Drug delivery systems
(implants, sustained-release; articular sustained-release drug delivery to synovial ***joint***)

IT ***Prosthetic*** materials and ***Prosthetics***
(implants; articular sustained-release drug delivery to synovial ***joint***)

IT Polyesters, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lactic acid-based; articular sustained-release drug delivery to synovial ***joint***)

IT Oils
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(natural; articular sustained-release drug delivery to synovial ***joint***)

IT Anti-inflammatory agents
(nonsteroidal; articular sustained-release drug delivery to synovial ***joint***)

IT ***Joint*** , anatomical
(synovial; articular sustained-release drug delivery to synovial ***joint***)

IT 50-02-2, Dexamethasone 79-10-7D, Acrylic acid, derivs., polymers 107-92-6D, Butyric acid, derivs., polymers 109-52-4D, Valeric acid, derivs., polymers 137-58-6, Lidocaine 1403-66-3, Gentamycin ***9003-07-0*** , ***Polypropylene*** ***9003-39-8*** , ***Polyvinylpyrrolidone*** 9004-34-6D, Cellulose, derivs. 9004-61-9, Hyaluronic acid 9005-35-0, Calcium alginate 9016-00-6,

Polydimethylsiloxane 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 26009-03-0, Poly(glycolic acid) 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Poly(lactic acid) 26124-68-5, Poly(glycolic acid) 31900-57-9, Polydimethylsiloxane 34346-01-5, Glycolic acid-lactic acid copolymer 37371-09-8, ***Polyvinyl*** ***alcohol*** phthalate 38396-39-3, Bupivacaine 127464-60-2, Vascular endothelial growth factor
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(articular sustained-release drug delivery to synovial ***joint***)

L22 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:672684 HCAPLUS
DOCUMENT NUMBER: 143:137590
TITLE: Production of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration
INVENTOR(S): Rothbrust, Frank; Van T'hoen, Christian; Holand, Wolfram; Rheinberger, Volker
PATENT ASSIGNEE(S): Ivoclar Vivadent A.-G., Germany
SOURCE: U.S. Pat. Appl. Publ., 13 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005164045	A1	20050728	US 2004-823278	20040413
EP 1559697	A2	20050803	EP 2004-30196	20041220
EP 1559697	A3	20050810		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
WO 2005070322	A1	20050804	WO 2005-EP50444	20050127
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: DE 2004-102004004059A 20040127

AB An oxide ceramic shaped part is manufd. by pressing a powder contg. a ceramic-contg. binder or a powder mixt. of an oxide ceramic into a shaped part, pre-sintering the shaped part at 600-1300.degree. under atm. pressure before evacuating the closed container in which the pre-sintered shaped part is disposed to less than 40 mbar pressure, the shaped part having a max. d. of 10-90%. Subsequently, an infiltration material is applied onto the shaped part via infiltration for 1-10 min to seal off the shaped part relative to the surrounding atm.

TI Production of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration

IT Titanates
Zirconates
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(alkoxides, precursor; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT Silanes
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(alkoxy, precursor; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT ***Prosthetic*** materials and ***Prosthetics***
(alloys, implants, ceramics for; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT Metal alkoxides
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(aluminum, precursor; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT ***Joint*** , anatomical
(artificial, ceramics for; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT Polyvinyl butyrals
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(binder; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT Dental materials and appliances
(bridges, ceramics for; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT Dental materials and appliances
(ceramics, crowns, ceramics for; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT Dental materials and appliances
(ceramics, implants, ceramics for; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT Oxides (inorganic), processes
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(ceramics; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT Silanes
RL: CPS (Chemical process); PEP (Physical, engineering or chemical

process); PROC (Process)
(hydrolyzable precursor; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT Dental materials and appliances
(inlays, ceramics for; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT Dental materials and appliances
(onlays, ceramics for; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT Ceramics
(oxides; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT Vinyl compounds, processes
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(polymers, binder; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT Heat treatment
(presintering; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT Molding
(press; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT Etching
Impregnation
Sintering
(prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT Metal alkoxides
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(titanium, precursor; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT Metal alkoxides
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(zirconium, precursor; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT ***9002-88-4*** , ***Polyethylene*** 9003-20-7, Polyvinyl acetate ***9003-39-8*** , ***Polyvinylpyrrolidone*** 9004-34-6, Cellulose, processes
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(binder; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT 1314-23-4, Zirconia, processes 1344-28-1, Aluminum oxide (Al2O3),

processes 13463-67-7, Titania, processes
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(ceramics; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

IT 1306-38-3, Ceria, uses 1314-36-9, Yttria, uses 12060-08-1, Scandia 12061-16-4, Erbia
RL: MOA (Modifier or additive use); USES (Uses)
(zirconia stabilized by; prodn. of oxide ceramic shaped articles for dental implants, ***artificial*** ***joints*** and ***prosthetics*** by pre-sintering and vacuum infiltration)

L22 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:216608 HCAPLUS
DOCUMENT NUMBER: 142:285326
TITLE: Echogenic coatings of a biomedical device with overcoat comprising pharmaceutical agents and methods for preparation
INVENTOR(S): Violante, Michael R.; Whitbourne, Richard J.; Lanzafame, John F.; Lydon, Margaret
PATENT ASSIGNEE(S): Angiotech Biocoatings Corp., USA
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005020905	A2	20050310	WO 2004-US27458	20040825

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-647119 A 20030825

AB The present invention relates to an ultrasonically visible solid device for inserting into a non-gas target medium comprising an echogenic surface having structures entrapping gas causing the device to be ultrasonically visible, wherein the gas-entrapping structures are formed from open structures covered with a flexible overcoat that does not significantly reduce the compressibility of the gas trapped in the structures. The overcoat improves one or more properties of the device selected from echogenic coating durability, lubricity, surface smoothness, protection of the echogenic layer from deleterious effects of exposure to body fluids. The structures are selected from the group consisting of pores, channels, cavities, pockets, and combinations thereof, covered by the overcoat. The overcoat of the device incorporates one or more pharmaceutical agents.

IT Penis
(***prosthesis*** ; echogenic coatings of biomedical device with overcoat comprising pharmaceutical agents and methods for prepn.)
IT ***Joint*** , anatomical
(replacement; echogenic coatings of biomedical device with overcoat comprising pharmaceutical agents and methods for prepn.)
IT 67-68-5, Dimethylsulfoxide, uses 71-55-6, 1,1,1-Trichloroethane 75-09-2, Dichloromethane, uses 78-93-3, 2-Butanone, uses 106-99-0, Butadiene, uses 108-88-3, Toluene, uses 108-94-1, Cyclohexanone, uses 109-99-9, Tetrahydrofuran, uses 110-54-3, Hexane, uses 123-86-4, n-Butyl acetate 141-78-6, Ethyl acetate, uses 872-50-4, n-Methylpyrrolidone, uses 1330-20-7, Xylene, uses 9002-84-0, Polytetrafluoroethylene 9002-85-1, Poly(vinylidenechloride) ***9002-88-4*** , ***Polyethylene*** ***9003-39-8*** , ***Polyvinylpyrrolidone*** 9003-55-8, Butadiene-styrene copolymer 9016-00-6, Polydimethylsiloxane 24937-78-8, Ethylene/Vinyl acetate copolymer 31900-57-9, Polydimethylsiloxane 106107-54-4, Butadiene-styrene block polymer
RL: DEV (Device component use); USES (Uses)
(echogenic coatings of biomedical device with overcoat comprising pharmaceutical agents and methods for prepn.)

L22 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:182523 HCAPLUS
DOCUMENT NUMBER: 142:266874
TITLE: Synergistic antimicrobial compositions and methods of inhibiting biofilm formation
INVENTOR(S): Madhyastha, Srinivasa
PATENT ASSIGNEE(S): Kane Biotech Inc., Can.
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2005018701	A1	20050303	WO 2004-CA1477		20040806
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
CA 2452032	AA	20040430	CA 2003-2452032		20031204
US 2005049181	A1	20050303	US 2004-781464		20040217
PRIORITY APPLN. INFO.:			US 2003-497337P	P	20030825
			CA 2003-2452032	A	20031204
			US 2004-781464	A	20040217

AB A synergistic antimicrobial compn. for inhibiting biofilm formation includes an iron-sequestering glycoprotein, a cationic polypeptide and a

chelating agent, or an iron-sequestering glycoprotein and a chelating agent, or an iron-sequestering glycoprotein and a cationic polypeptide. Addnl., surfactants and quaternary ammonium compds. may also be advantageously combined with iron-sequestering glycoproteins in an antimicrobial compn. Methods of using a synergistic compn. for inhibiting medical device biofilm formation are also disclosed. Antibacterial effects of ovotransferrin, protamine sulfate, and EDTA alone and in combinations on biofilm formation in catheter-assocd. bacteria such as Escherichia, Proteus, Pseudoinonas, Klebsiella, Enterococcus, and Staphylococcus are shown.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT ***Joint*** , anatomical
(artificial; synergistic antimicrobial compns. and methods of inhibiting biofilm formation)

IT Antibiotics
Biofilms (microbial)
Chelating agents
Contact lenses
Enterococcus faecalis
Escherichia coli
Gram-negative bacteria
Hydrogels
Klebsiella oxytoca
Klebsiella pneumoniae
Medical goods
Prosthetic materials and ***Prosthetics***
Proteus mirabilis
Providencia stuartii
Pseudomonas aeruginosa
Serratia marcescens
Staphylococcus aureus
Staphylococcus epidermidis
Staphylococcus saprophyticus
Surfactants
(synergistic antimicrobial compns. and methods of inhibiting biofilm formation)

IT Heart
(valve, ***prosthetic*** ; synergistic antimicrobial compns. and methods of inhibiting biofilm formation)

IT 60-00-4, EDTA, biological studies 67-42-5, EGTA 67-43-6, DTPA 93-62-9, HEIDA 139-13-9, NTA 142-73-4, IDA 150-39-0, HEDTA 1170-02-1, EDDHA ***9002-88-4*** , ***Polyethylene*** 9002-89-5, ***Polyvinyl*** ***alcohol*** ***9003-39-8*** , ***Polyvinylpyrrolidone*** 13291-61-7, CDTA
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(synergistic antimicrobial compns. and methods of inhibiting biofilm formation)

L22 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:119884 HCAPLUS
DOCUMENT NUMBER: 142:204864
TITLE: Medical implants coated with porous carbon surfaces carrying drugs
INVENTOR(S): Rathenow, Joerg; Asgari, Soheil; Ban, Andreas
PATENT ASSIGNEE(S): Blue Membranes GmbH, Germany

SOURCE: Ger. Offen., 15 pp.
CODEN: GWXXBX

DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10333099	A1	20050210	DE 2003-10333099	20030721
DE 202004009061	U1	20040916	DE 2004-202004009061	20040528
CA 2519750	AA	20041209	CA 2004-2519750	20040528
WO 2004105826	A2	20041209	WO 2004-EP5785	20040528
WO 2004105826	A3	20050623		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005079201	A1	20050414	US 2004-939021	20040910

PRIORITY APPLN. INFO.:

DE 2003-10324415	A1	20030528
DE 2003-10333098	A1	20030721
DE 2003-10333099	A1	20030721
WO 2004-EP5785	W	20040528

AB The invention concerns a method for the prepn. of medical implants with functionalized surfaces involving the steps: (a)prepn. of medical implant that is at least partially coated with a carbon-contg. layer; (b) activation of the carbon-contg. layer by forming a pores on the surface; (c) functionalization of the activated, carbon-contg. surface. The carbon-contg. layer is composed of pyrolytically prepd. carbon, carbon deposited by CVD or PVD process, sputtered carbon, metal carbides, metal carbonitrides, metal oxynitrides, metal oxycarbides or their combinations. The carbon-contg. layers are activated by oxidn. with air, oxygen, dinitrogen oxide, and oxidizing acids, also at elevated temp. A redn. process can also be used for activation. Activated surfaces are functionalized by loading one or more drugs, microorganisms or cells onto the surface. Activated surfaces can be sealed in a CVD or CVI (chem. vapor infiltration) process. The implants are prepd. from carbon, carbon fibers, ceramics, glass, metals, alloys, artificial bone, stone, minerals. Artificial blood vessels, stents, coronary stents, peripheral stents, orthopedic implants, bone and ***joint*** ***prosthesis*** , artificial heart, heart valves, s.c., and i.m. implants can be activated and functionalized.
AB The invention concerns a method for the prepn. of medical implants with functionalized surfaces involving the steps: (a)prepn. of medical implant that is at least partially coated with a carbon-contg. layer; (b) activation of the carbon-contg. layer by forming a pores on the surface; (c) functionalization of the activated, carbon-contg. surface. The carbon-contg. layer is composed of pyrolytically prepd. carbon, carbon deposited by CVD or PVD process, sputtered carbon, metal carbides, metal carbonitrides, metal oxynitrides, metal oxycarbides or their combinations. The carbon-contg. layers are activated by oxidn. with air, oxygen,

dinitrogen oxide, and oxidizing acids, also at elevated temp. A redn. process can also be used for activation. Activated surfaces are functionalized by loading one or more drugs, microorganisms or cells onto the surface. Activated surfaces can be sealed in a CVD or CVI (chem. vapor infiltration) process. The implants are prepd. from carbon, carbon fibers, ceramics, glass, metals, alloys, artificial bone, stone, minerals. Artificial blood vessels, stents, coronary stents, peripheral stents, orthopedic implants, bone and ***joint*** ***prosthesis*** , artificial heart, heart valves, s.c., and i.m. implants can be activated and functionalized.

ST medical implant ***prosthesis*** stent carbon porous carbon surface drug

IT ***Prosthetic*** materials and ***Prosthetics***
(alloys, implants; medical implants coated with porous carbon surfaces carrying drugs)

IT Bone
Joint , anatomical
(artificial; medical implants coated with porous carbon surfaces carrying drugs)

IT ***Prosthetic*** materials and ***Prosthetics***
(cardiovascular implants; medical implants coated with porous carbon surfaces carrying drugs)

IT ***Prosthetic*** materials and ***Prosthetics***
(ceramic, implants; medical implants coated with porous carbon surfaces carrying drugs)

IT ***Prosthetic*** materials and ***Prosthetics***
(glass ceramics; medical implants coated with porous carbon surfaces carrying drugs)

IT Drug delivery systems
Prosthetic materials and ***Prosthetics***
(implants; medical implants coated with porous carbon surfaces carrying drugs)

IT ***Polyethers*** , biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ortho ester group-contg.; medical implants coated with porous carbon surfaces carrying drugs)

IT ***Prosthetic*** materials and ***Prosthetics***
(orthopedic; medical implants coated with porous carbon surfaces carrying drugs)

IT Polyurethanes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(***polyether*** -; medical implants coated with porous carbon surfaces carrying drugs)

IT ***Prosthetic*** materials and ***Prosthetics***
(polymers; medical implants coated with porous carbon surfaces carrying drugs)

IT Ceramics
(***prosthetic*** implants; medical implants coated with porous carbon surfaces carrying drugs)

IT Glass ceramics
(***prosthetic*** ; medical implants coated with porous carbon surfaces carrying drugs)

IT ...9002-71-5, Thyrotrophin ***9002-88-4*** , ***Polyethylene*** 9002-89-5, ***Polyvinylalcohol*** 9003-01-4, Acrylic acid homopolymer ***9003-07-0*** , ***Polypropylene*** ***9003-39-8*** , ***Polyvinylpyrrolidone*** 9004-32-4, Carboxymethylcellulose 9004-34-6, Cellulose, biological studies 9004-54-0, Dextran, biological...

...Polylysine 25122-41-2, Clobetasol 25190-06-1, Poly(Tetramethylene glycol) 25322-68-3, ***Polyethylene*** ***oxide*** 25322-69-4, ***Polypropylene*** oxide 25614-03-3, Bromocriptine 25953-19-9, Cefazolin 26009-03-0, Polyglycolic acid 26023-30-3,...
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(medical implants coated with porous carbon surfaces carrying drugs)

L22 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:119883 HCAPLUS
DOCUMENT NUMBER: 142:204863
TITLE: Biocompatible coated medical implants with a carbon layer and method for preparation
INVENTOR(S): Rathenow, Joerg; Asgari, Soheil; Ban, Andreas
PATENT ASSIGNEE(S): Blue Membranes GmbH, Germany
SOURCE: Ger. Offen., 23 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10333098	A1	20050210	DE 2003-10333098	20030721
DE 202004009060	U1	20040916	DE 2004-202004009060	20040510
CA 2519742	AA	20041125	CA 2004-2519742	20040510
WO 2004101017	A2	20041125	WO 2004-EP4985	20040510
WO 2004101017	A3	20050303		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 202004009061	U1	20040916	DE 2004-202004009061	20040528
CA 2519750	AA	20041209	CA 2004-2519750	20040528
WO 2004105826	A2	20041209	WO 2004-EP5785	20040528
WO 2004105826	A3	20050623		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005079200	A1	20050414	US 2004-938995	20040910
US 2005079201	A1	20050414	US 2004-939021	20040910
PRIORITY APPLN. INFO.:			DE 2003-10322182	A1 20030516

DE	2003-10324415	A1 20030528
DE	2003-10333098	A1 20030721
DE	2003-10333099	A1 20030721
WO	2004-EP4985	W 20040510
WO	2004-EP5785	W 20040528

AB The invention concerns a method for the prepn. of biocompatible coatings for implants, and medical goods composing the steps (a) coating the medical good at least partially with a polymer film using a coating process; (b) heating the polymer film in an oxygen-free atm. at 200-2500 .degree.C to obtain a carbon layer on the medical good. The medical goods are heat resistant; they are prepd. from carbon, carbon fibers, ceramics, glass, metals, alloys, artificial bone, stone, minerals; during heating they are transferred to their thermostable state. Artificial blood vessels, stents, coronary stents, peripheral stents, orthopedic implants, bone and ***joint*** ***prosthesis*** , artificial heart, heart valves, s.c., and i.m. implants can be coated. Other coating methods, e.g. dipping, spraying, printing can be applied. Several carbon layers with various porosity can be formed; biocompatible, biodegradable, non-biodegradable polymer layers can be placed on top of the carbon layers; drugs can be adsorbed onto the layers.
AB The invention concerns a method for the prepn. of biocompatible coatings for implants, and medical goods composing the steps (a) coating the medical good at least partially with a polymer film using a coating process; (b) heating the polymer film in an oxygen-free atm. at 200-2500 .degree.C to obtain a carbon layer on the medical good. The medical goods are heat resistant; they are prepd. from carbon, carbon fibers, ceramics, glass, metals, alloys, artificial bone, stone, minerals; during heating they are transferred to their thermostable state. Artificial blood vessels, stents, coronary stents, peripheral stents, orthopedic implants, bone and ***joint*** ***prosthesis*** , artificial heart, heart valves, s.c., and i.m. implants can be coated. Other coating methods, e.g. dipping, spraying, printing can be applied. Several carbon layers with various porosity can be formed; biocompatible, biodegradable, non-biodegradable polymer layers can be placed on top of the carbon layers; drugs can be adsorbed onto the layers.

ST medical implant ***prosthesis*** stent carbon polymer drug biocompatible coating

IT ***Prosthetic*** materials and ***Prosthetics***
(alloys, implants; biocompatible coated medical implants with a carbon layer and method for prepn.)

IT Bone
Joint , anatomical
(artificial; biocompatible coated medical implants with a carbon layer and method for prepn.)

IT ***Prosthetic*** materials and ***Prosthetics***
(cardiovascular implants; biocompatible coated medical implants with a carbon layer and method for prepn.)

IT ***Prosthetic*** materials and ***Prosthetics***
(ceramic, implants; biocompatible coated medical implants with a carbon layer and method for prepn.)

IT ***Prosthetic*** materials and ***Prosthetics***
(glass ceramics; biocompatible coated medical implants with a carbon layer and method for prepn.)

IT Drug delivery systems
Prosthetic materials and ***Prosthetics***
(implants; biocompatible coated medical implants with a carbon layer and method for prepn.)

IT ***Polyethers*** , biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ortho ester group-contg.; biocompatible coated medical implants with a carbon layer and method for prepn.)
IT ***Prosthetic*** materials and ***Prosthetics***
(orthopedic; biocompatible coated medical implants with a carbon layer and method for prepn.)
IT Polyurethanes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(***polyether*** -; biocompatible coated medical implants with a carbon layer and method for prepn.)
IT Ceramics
(***prosthetic*** implants; biocompatible coated medical implants with a carbon layer and method for prepn.)
IT Glass ceramics
(***prosthetic*** ; biocompatible coated medical implants with a carbon layer and method for prepn.)
IT ...9002-71-5, Thyrotrophin 9002-86-2, Polyvinylchloride ***9002-88-4***
, ***Polyethylene*** 9002-89-5, ***Polyvinylalcohol***
9003-01-4, Acrylic acid homopolymer ***9003-07-0*** ,
Polypropylene 9003-08-1, Melamine resin 9003-17-2,
Polybutadiene 9003-27-4, Polyisobutene 9003-28-5, Polybutene
9003-39-8 , ***Polyvinylpyrrolidone*** 9004-32-4,
... RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biocompatible coated medical implants with a carbon layer and method for prepn.)

L22 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:756044 HCAPLUS
DOCUMENT NUMBER: 141:266048
TITLE: Medical implants with carbon-containing surfaces that are functionalized
PATENT ASSIGNEE(S): Blue Membranes GmbH, Germany
SOURCE: Ger. Gebrauchsmusterschrift, 18 pp.
CODEN: GGXXFR
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 202004009061	U1	20040916	DE 2004-202004009061	20040528
DE 10324415	A1	20041216	DE 2003-10324415	20030528
DE 10333098	A1	20050210	DE 2003-10333098	20030721
DE 10333099	A1	20050210	DE 2003-10333099	20030721
PRIORITY APPLN. INFO.:			DE 2003-10324415	A1 20030528
			DE 2003-10333098	A1 20030721
			DE 2003-10333099	A1 20030721

AB The invention concerns medical implants with carbon-contg. surfaces that are functionalized; the surfaces are prepd. by (a) prepg. a medical implant with a carbon-contg. surface; (b) activation of the carbon layer by creating porosity; (c) functionalization of the activated, carbon-contg. layer. The carbon layer can be prepd. by pyrolysis, CVD, PVD, sputtering, ion implantation. The medical devices are prepd. from carbon, carbon-composite material, glass, ceramics, glass fibers, carbon fibers, metals, stainless steel, titanium, tantalum, platinum, nitinol,

alloys, artificial bone, minerals, and their combinations. Artificial blood vessels, stents, coronary stents, peripheral stents, orthopedic implants, artificial hearts and heart valves, artificial bones and ***joints*** are prepd. The carbon layer is activated with oxidn. or reducing agents in the presence of air, oxygen, nitrogen monoxide, oxidative acids; heat and/or ultrasound can be applied. The activated implant surfaces are functionalized with drugs, microorganisms, plant, animal or human cells. The invention also concerns controlled-release implanted drug delivery systems.

AB The invention concerns medical implants with carbon-contg. surfaces that are functionalized; the surfaces are prepd. by (a) prepg. a medical implant with a carbon-contg. surface; (b) activation of the carbon layer by creating porosity; (c) functionalization of the activated, carbon-contg. layer. The carbon layer can be prepd. by pyrolysis, CVD, PVD, sputtering, ion implantation. The medical devices are prepd. from carbon, carbon-composite material, glass, ceramics, glass fibers, carbon fibers, metals, stainless steel, titanium, tantalum, platinum, nitinol, alloys, artificial bone, minerals, and their combinations. Artificial blood vessels, stents, coronary stents, peripheral stents, orthopedic implants, artificial hearts and heart valves, artificial bones and ***joints*** are prepd. The carbon layer is activated with oxidn. or reducing agents in the presence of air, oxygen, nitrogen monoxide, oxidative acids; heat and/or ultrasound can be applied. The activated implant surfaces are functionalized with drugs, microorganisms, plant, animal or human cells. The invention also concerns controlled-release implanted drug delivery systems.

IT ***Prosthetic*** materials and ***Prosthetics***
(alloys, implants; medical implants with carbon-contg. surfaces that are functionalized)

IT Blood vessel
Bone
Heart
Joint , anatomical
(artificial; medical implants with carbon-contg. surfaces that are functionalized)

IT ***Prosthetic*** materials and ***Prosthetics***
(cardiovascular implants; medical implants with carbon-contg. surfaces that are functionalized)

IT ***Prosthetic*** materials and ***Prosthetics***
(ceramic, implants; medical implants with carbon-contg. surfaces that are functionalized)

IT ***Prosthetic*** materials and ***Prosthetics***
(composites, implants; medical implants with carbon-contg. surfaces that are functionalized)

IT ***Prosthetic*** materials and ***Prosthetics***
(glass ceramics; medical implants with carbon-contg. surfaces that are functionalized)

IT Drug delivery systems
Prosthetic materials and ***Prosthetics***
(implants; medical implants with carbon-contg. surfaces that are functionalized)

IT ***Prosthetic*** materials and ***Prosthetics***
(orthopedic; medical implants with carbon-contg. surfaces that are functionalized)

IT Polyurethanes, biological studies
Polyurethanes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(***polyether*** -; medical implants with carbon-contg. surfaces that are functionalized)

IT Ceramics
(***prosthetic*** implants; medical implants with carbon-contg. surfaces that are functionalized)

IT Glass ceramics
(***prosthetic*** ; medical implants with carbon-contg. surfaces that are functionalized)

IT ...biological studies 9002-71-5, Thyrotrophin 9002-72-6, Growth hormone ***9002-88-4*** , ***Polyethylene*** 9002-89-5, ***Polyvinylalcohol*** ***9003-07-0*** , ***Polypropylene*** 9003-28-5, Polybutene ***9003-39-8*** , ***Polyvinylpyrrolidone*** 9004-34-6D, Cellulose, derivs. 9004-54-0, Dextran, biological studies... ...Diflunisal 23155-02-4, Fosfomycin 23214-92-8, Doxorubicin 24937-78-8, **Polyethylene**vinyl acetate 25014-41-9, 2-Propenenitrile, homopolymer 25038-59-9, **Polyethylene**terephthalate, biological studies 25122-41-2, Clobetasol 25190-06-1, Polytetramethylene glycol 25322-68-3, ***Polyethylene*** ***oxide*** 25322-69-4, ***Polypropylene*** oxide 25614-03-3, Bromocriptine 25953-19-9, Cefazolin 26009-03-0, Polyglycolide 26023-30-3, D,L-Lactic acid,...
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(medical implants with carbon-contg. surfaces that are functionalized)

L22 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:419104 HCAPLUS
DOCUMENT NUMBER: 141:415860
TITLE: Polymer composites as components of biological systems and medicinal preparations
AUTHOR(S): Bobrysheva, S. N.; Kolenchenko, A. A.
CORPORATE SOURCE: Inst. Mekh. Metallopolim. Sint. im. V. A. Belogo, NANB, Gomel, 246050, Belarus
SOURCE: Materialy, Tekhnologii, Instrumenty (2003), 8(4), 50-53
CODEN: MTIAC3; ISSN: 1607-9922
PUBLISHER: Institut Mekhaniki Metallopolimernykh Sistem im. V. A. Belogo
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB The work gives an ultimate overview of application of polymers in medicinal prepns. for treatment of human ***joint*** diseases. Models of synovial lubricant for ***joints*** are presented which incorporate hydrophilic polymers (hydrogels), i.e., hyaluronic acid, ***polyethylene*** ***oxide*** , organosilane, sodium CM-cellulose, and ***polyvinylpyrrolidone*** . Their most compatible combinations with different drugs and functional components are considered to provide for a complex of physicochem., mech. and rheol. properties. Based on results of clin. and exptl. investigations it is shown that the models developed can be successfully used as a total replacement or for therapeutic correction of synovial lubricant.

AB The work gives an ultimate overview of application of polymers in medicinal prepns. for treatment of human ***joint*** diseases. Models of synovial lubricant for ***joints*** are presented which incorporate hydrophilic polymers (hydrogels), i.e., hyaluronic acid, ***polyethylene*** ***oxide*** , organosilane, sodium CM-cellulose, and ***polyvinylpyrrolidone*** . Their most compatible combinations with different drugs and functional components are considered to provide

for a complex of physicochem., mech. and rheol. properties. Based on results of clin. and exptl. investigations it is shown that the models developed can be successfully used as a total replacement or for therapeutic correction of synovial lubricant.

IT Disease, animal
(arthropathy; polymer hydrogels as replacement of synovial fluid for treatment of ***joint*** diseases)

IT ***Prosthetic*** materials and ***Prosthetics***
(composites; polymer hydrogels as replacement of synovial fluid for treatment of ***joint*** diseases)

IT ***Joint*** , anatomical
(disease; polymer hydrogels as replacement of synovial fluid for treatment of ***joint*** diseases)

IT Silanes
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(organosilanes; polymer hydrogels as replacement of synovial fluid for treatment of ***joint*** diseases)

IT Hydrogels
Synovial fluid
(polymer hydrogels as replacement of synovial fluid for treatment of ***joint*** diseases)

IT Polymers, biological studies
Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymer hydrogels as replacement of synovial fluid for treatment of ***joint*** diseases)

IT ***9003-39-8*** , ***Polyvinylpyrrolidone*** 9004-32-4, Sodium carboxymethyl cellulose 9004-61-9, Hyaluronic acid 25322-68-3, ***Polyethylene*** ***oxide***
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymer hydrogels as replacement of synovial fluid for treatment of ***joint*** diseases)

L22 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:412562 HCAPLUS
DOCUMENT NUMBER: 140:412378
TITLE: Anti-adhesion compositions of polyacids and ***polyethers*** for reducing post-surgical pain
INVENTOR(S): Schwartz, Herbert E.; Blackmore, John M.; Cortese, Stephanie M.; Oppelt, William G.; DiZigera, Gere
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 86 pp., Cont.-in-part of U.S. Ser. No. 472,110.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004096422	A1	20040520	US 2003-666804	20030919
US 5906997	A	19990525	US 1997-877649	19970617
US 6034140	A	20000307	US 1998-230097	19980213
US 6869938	B1	20050322	US 1999-472110	19991227
WO 2005027852	A2	20050331	WO 2004-US30839	20040920
WO 2005027852	A3	20051027		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 1997-877649	A3	19970617
US 1998-23097	A2	19980213
US 1999-127571P	P	19990402
US 1999-472110	A2	19991227
US 2003-666804	A	20030919

AB The present invention relates to improved methods for reducing pain and organ dysfunction using bioadhesive, bioresorbable, anti-adhesion compns. made of intermacromol. complexes of carboxyl-contg. polysaccharides, ***polyethers*** , polyacids, polyalkylene oxides, multivalent cations and/or polycations. The polymers are assocd. with each other, and are then either dried into membranes or sponges, or are used as gels, fluids or microspheres. Compns. are useful in surgery to prevent the formation and reformation of post-surgical adhesions. The compns. are designed to breakdown in-vivo, and thus be removed from the body. Membranes are inserted during surgery either dry or optionally after conditioning in aq. solns. Anti-adhesion, bioadhesive, bioresorptive, antithrombogenic and phys. properties of such membranes and gels can be varied as needed by carefully adjusting the pH and/or cation content of the polymer casting solns., polyacid compn., the polyalkylene oxide compn., or by conditioning the membranes prior to surgical use. Membranes and gels can be used concurrently. Anti-adhesion compns. may also be used to lubricate tissues and/or medical instruments, and/or deliver drugs to the surgical site and release them locally. For example, an ionically **crosslinked** gel having 2% wt./vol. solids ratio and 95% CM-cellulose/5% ***polyethylene*** ***oxide*** was prepd. A dry, powd. mixt. contg. 9.5 g CMC and 0.5 g PEO was added to 500 mL water contg. 3.2 mL of a 25.2% wt./vol. soln. of FeCl2.6H2O and the soln. was stirred at high speed until homogeneous. The osmolality was then adjusted to a physiol. acceptable value of about 300 mmol/kg by adding about 13 mL of a 30% wt./vol. soln. of NaCl and further mixing the gel. The pH of the gel was adjusted to 7.0 by adding 1.7 N NH4OH. The gel was sterilized in an autoclave for 15 min at 250.degree.. Freeze drying of the gel provided iron-assocd. sponges.

ST polyacid ***polyether*** gel membrane microsphere surgery adhesion pain

IT Adhesion, biological
Analgesics
Anesthetics
Anti-inflammatory agents
Anticoagulants
Biocompatibility
Coating materials
Crosslinking
Drug delivery systems
Gamma ray sterilization
Hydration, chemical
Hydrogels

Hydrogen bond
Microspheres
Pain
Particle size
Particle size distribution
Plasticizers
Swelling, physical
(anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Chemotactic factors
Cytokines
Growth factors, animal
Hormones, animal, biological studies
Polyesters, biological studies
Polyethers , biological studies
Polyoxyalkylenes, biological studies
Polyphosphoric acids
Proteins
RGD peptides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Polysaccharides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carboxyl-contg.; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Medical goods
(films; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Tendon
(flexor, repair of; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT ***Prosthetic*** materials and ***Prosthetics***
(implants, coatings; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Polyesters, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lactic acid-based; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Abdomen
Surgery
(laparoscopy; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Abdomen
Surgery
(laparotomy; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Films
(medical; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Medical goods
(membranes; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Cations
(multivalent; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Uterus, neoplasm

(myoma, myomectomy; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Anti-inflammatory agents
(nonsteroidal; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Growth factors, animal
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(osteogenins; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Buffers
(phosphate, membrane conditioning with; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Physiological saline solutions
(phosphate-buffered, membrane conditioning with; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Cations
(polyvalent; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT ***Joint*** , anatomical
(replacement surgery; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Body, anatomical
(sinus, surgery; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Medical goods
(sponges; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Abdomen
Ear
Eye
Nose
Spinal column
Thorax
(surgery; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Arthritis
(treatment of; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT Myoma
(uterine, myomectomy; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT 50-78-2, Aspirin 56-81-5, Glycerol, biological studies 1398-61-4, Chitin 7429-90-5, Aluminum, biological studies 7439-89-6, Iron, biological studies 7439-95-4, Magnesium, biological studies 7439-96-5, Manganese, biological studies 7440-47-3, Chromium, biological studies 7440-66-6, Zinc, biological studies 7440-70-2, Calcium, biological studies 7446-70-0, Aluminum chloride, biological studies 7758-94-3, Ferrous chloride 9000-69-5, Pectin 9004-32-4, Carboxymethyl cellulose sodium 9004-42-6, Carboxyethyl cellulose 9004-61-9, Hyaluronic acid 9005-32-7, Alginic acid 9005-37-2, Propylene glycol alginate 9005-49-6, Heparin, biological studies 9007-28-7, Chondroitin sulfate 9044-05-7, Carboxymethyldextran 10043-52-4, Calcium chloride, biological studies 15687-27-1, Ibuprofen 22071-15-4, Ketoprofen 25087-26-7, Polymethacrylic acid 25322-68-3, ***Polyethylene*** ***oxide*** 25322-69-4, ***Polypropylene*** oxide 26009-03-0, Polyglycolic acid 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Polylactic acid 26124-68-5, Polyglycolic acid 26876-05-1,

Poly(terephthalic acid) 26913-45-1, Poly(oxycarbonyl-1,4-phenylenecarbonyl) 29894-36-8, Polymannuronic acid 36562-70-6, Polyguluronic acid 36655-86-4, Polyglucuronic acid 50851-57-5, **Polystyrene**sulfonic acid 52352-27-9, Poly(hydroxybutyric acid) 52519-63-8, Carboxymethyl chitin 83512-85-0, Carboxymethylchitosan 139639-23-9, Tissue plasminogen activator 690268-60-1, Oxiplex SP
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT 7778-77-0, Monobasic potassium phosphate
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(buffer, membrane conditioning with; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

IT 1336-21-6, Ammonium hydroxide
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(membrane conditioning with; anti-adhesion compns. of polyacids and ***polyethers*** for reducing post-surgical pain)

L22 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:172401 HCAPLUS
DOCUMENT NUMBER: 136:221783
TITLE: Protein matrix materials, devices and methods of making and using thereof
INVENTOR(S): Masters, David B.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 69 pp., Cont.-in-part of U.S. Ser. No. 160,421.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2002028243	A1	20020307	US 2001-796170		20010228
US 6342250	B1	20020129	US 1998-160421		19980925
PRIORITY APPLN. INFO.:			US 1998-160421	A2	19980925
			US 2000-185420P	P	20000228
			US 2000-222762P	P	20000803
			US 1997-60048P	P	19970925

AB The present invention relates to protein matrix materials and devices and the methods of making and using protein matrix materials and devices. More specifically the present invention relates to protein matrix materials and devices that may be utilized for various medical applications including, but not limited to, drug delivery devices for the controlled release of pharmacol. active agents, encapsulated or coated stent devices, vessels, tubular grafts, vascular grafts, wound healing devices including protein matrix suture material and meshes, skin/bone/tissue grafts, biocompatible electricity conducting matrixes, clear protein matrixes, protein matrix adhesion prevention barriers, cell scaffolding and other biocompatible protein matrix devices. Furthermore, the present invention relates to protein matrix materials and devices made by forming a film comprising one or more biodegradable protein materials, one or more biocompatible solvents and optionally one or more pharmacol. active agents. The film is then partially dried, rolled or otherwise shaped, and then compressed to form the desired protein matrix device.

ST protein matrix ***prosthetic*** material implant drug delivery

IT UV radiation
(-activated reagents; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Reagents
RL: RCT (Reactant); RACT (Reactant or reagent)
(UV-activated; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Alcoholism
(agents for treatment of; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Bone
Joint , anatomical
(artificial; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Medical goods
(bandages; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Acids, uses
Alcohols, uses
Glycols, uses
RL: NUU (Other use, unclassified); USES (Uses)
(biocompatible solvents; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Solvents
(biocompatible; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Medical goods
(catheters; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Medical goods
(dressings; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Medical goods
(endotracheal tubes; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Drug delivery systems
(films; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Pancreas
(implants for; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Drug delivery systems
(implants; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Tobacco smoke
(inhibitors; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Drug delivery systems
(injections; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Contraceptives
(intrauterine; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Drug delivery systems
(liposomes; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Transplant and Transplantation
(lung; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Proteins
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(matrix; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Medical goods
(meshes; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Genetic engineering
(of proteins; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT ***Polyethers*** , biological studies
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ortho ester group-contg.; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Drug delivery systems
(patches; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Dental materials and appliances
(plugs; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Polyamides, biological studies
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(poly(amino acids); protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Amines, biological studies
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyamines, nonpolymeric, amido; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Analgesics
Anesthetics
Anti-inflammatory agents
Antiasthmatics
Antibacterial agents
Anticoagulants
Anticonvulsants
Antidiabetic agents
Antiglaucoma agents
Antihistamines
Antiobesity agents
Antiparkinsonian agents
Antipsychotics
Antitumor agents
Antiviral agents
Contraceptives
Crosslinking agents
Drug delivery systems
Drugs
Drying
Fungicides
Ligament

Prosthetic materials and ***Prosthetics***
Silk
Tendon
Thrombolytics
Transplant and Transplantation
Wound healing promoters
(protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Fibrins
Fluoropolymers, biological studies
Polyamide fibers, biological studies
Polyamines
Polyanhydrides
Polycarbonates, biological studies
Polyesters, biological studies
Polyoxyalkylenes, biological studies
Polyphosphazenes
Polysiloxanes, biological studies
Polysulfones, biological studies
Polyurethanes, biological studies
Silicone rubber, biological studies
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Albumins, biological studies
Collagens, biological studies
Elastins
Fibrinogens
Fibroin
Fibronectins
Glycerides, biological studies
Keratins
Lipids, biological studies
Myosins
Phosphatidylcholines, biological studies
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Corticosteroids, biological studies
Enzymes, biological studies
Epoxides
Growth factors, animal
Steroids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Transplant and Transplantation
(skin; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Medical goods
(stents, coated; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Medical goods
(strips; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

IT Diet
(supplements; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)
IT Medical goods
(sutures; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)
IT Lung
Skin
(transplant; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)
IT Heart
(valve; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)
IT Spinal column
(vertebra, artificial disks; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)
IT 67-68-5, Dmso, uses 7732-18-5, Water, uses
RL: NUU (Other use, unclassified); USES (Uses)
(biocompatible solvent; protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)
IT 56030-54-7
RL: PKT (Pharmacokinetics); BIOL (Biological study)
(protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)
IT 111-20-6, Sebacic acid, biological studies 868-77-9, 2-Hydroxyethyl methacrylate 9002-84-0, Polytetrafluoroethylene 9002-86-2, Polyvinyl chloride 9002-89-5, ***Polyvinyl*** ***alcohol*** 9011-14-7, Polymethyl methacrylate 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 25322-68-3, ***Polyethylene*** ***oxide*** 25322-69-4, ***Polypropylene*** oxide 26009-03-0, Polyglycolic acid 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Polylactic acid 26124-68-5, Polyglycolic acid 60840-55-3, Cellulose acetate dibutyrate
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)
IT 88-12-0, biological studies 111-30-8, Glutaraldehyde 7782-42-5, Graphite, biological studies 9000-94-6, Antithrombin iii 9002-04-4, Thrombin 9087-70-1, Aprotinin 52352-27-9 60117-35-3 63296-32-2 64309-05-3 102190-94-3 144249-24-1 176049-73-3
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protein matrix ***prosthetic*** materials and devices for medical and pharmaceutical use)

L22 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:107058 HCAPLUS
DOCUMENT NUMBER: 136:156525
TITLE: A biocompatible biomaterial comprising a phospholipid-based artificial membrane
INVENTOR(S): Chaikof, Elliot L.; Feng, June; Orban, Janine M.; Liu, Hongbo; Sun, Xue Long; Faucher, Keith M.
PATENT ASSIGNEE(S): Emory University, USA
SOURCE: PCT Int. Appl., 117 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2002009647	A2	20020207	WO 2001-US24020		20010730
WO 2002009647	A3	20020725			
W: AU, CA, JP, US					
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR					
AU 2001083055	A5	20020213	AU 2001-83055		20010730
EP 1317253	A2	20030611	EP 2001-961819		20010730
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR					
JP 2004512062	T2	20040422	JP 2002-515202		20010730
US 2004063200	A1	20040401	US 2003-343408		20030722
PRIORITY APPLN. INFO.:			US 2000-221618P	P	20000728
			US 2000-221655P	P	20000728
			US 2000-221828P	P	20000728
			WO 2001-US24020	W	20010730

OTHER SOURCE(S): MARPAT 136:156525

AB A biocompatible biomaterial (or biol. component) is provided comprising a membrane-mimetic surface (film) covering a substrate. Suitable substrates include hydrated substrates, e.g., hydrogels which may contain drugs for delivery to a patient through the membrane-mimetic film, or may be made up of cells, such as islet cells, for transplantation. The surface may present exposed bioactive mols. or moieties for binding to target mols. in vivo, for modulating host response when implanted into a patient (e.g. the surface may be antithrombogenic or antiinflammatory) and the surface may have pores of selected sizes to facilitate transport of substances through it. An optional hydrophilic cushion or spacer between the substrate and the membrane-mimetic surface allows transmembrane proteins to extend from the surface through the hydrophilic cushion, mimicking the structure of naturally-occurring cells. An alkylated layer directly beneath the membrane-mimetic surface facilitates bonding of the surface to the remainder of the biol. component. Alkyl chains may extend entirely through the hydrophilic cushion when present. To facilitate binding, the substrate may optionally be treated with a polyelectrolyte or alternating layers of oppositely-charged polyelectrolytes to facilitate charged binding of the membrane-mimetic film or alkylated layer beneath the membrane-mimetic film to the substrate. The membrane-mimetic film is preferably made by in situ polymn. of phospholipid vesicles. For example, a stabilized, polymeric membrane-mimetic surface was produced on an alkylated polyelectrolyte multilayer by in situ photopolymn. of a lipid assembly. Mol. characterization confirmed the generation of a well-ordered supported lipid monolayer, which was stable under high shear flow conditions and capable of modulating interfacial mol. transport. In addn., the ability to use this system as a cell encapsulation barrier was illustrated. The addn. of a stable, supported lipid membrane provides an addnl. mechanism for controlling both the physiochem. and biol. properties of a polyelectrolyte multilayer, thus making it possible to optimize the clin. performance characteristics of artificial organs and other implanted medical devices.

IT ***Prosthetic*** materials and ***Prosthetics***
(antithrombogenic; polymd. phospholipid vesicles as membrane-mimetic surfaces for biocompatible biomaterials)

IT Blood vessel
Blood vessel
Bone
Cartilage
Heart
Joint , anatomical
Kidney
Ligament
Liver
Lung
Organ, animal
Tendon
(artificial; polymd. phospholipid vesicles as membrane-mimetic surfaces for biocompatible biomaterials)

IT ***Prosthetic*** materials and ***Prosthetics***
(implants; polymd. phospholipid vesicles as membrane-mimetic surfaces for biocompatible biomaterials)

IT 56-87-1, L-Lysine, biological studies 63-89-8, Dipalmitoylphosphatidylcholine 4235-95-4, DOPC 7440-57-5, Gold, biological studies 8001-27-2, Hirudin 9003-01-4, Polyacrylic acid 9003-05-8, Polyacrylamide ***9003-39-8*** , ***Polyvinylpyrrolidone*** ***9003-53-6*** , ***Polystyrene*** 9004-61-9, Hyaluronan 9004-61-9D, Hyaluronan, conjugates with lipids 9005-49-6, Heparin, biological studies 9007-28-7, Chondroitin sulfate 9050-30-0, Heparan sulfate 9056-36-4, Keratan sulfate 24967-94-0, Dermatan sulfate 25322-68-3, ***Polyethylene*** ***oxide*** 26662-91-9, Palmitoyloleoylphosphatidylcholine 195065-49-7 195065-50-0 195819-91-1 225239-50-9 395652-97-8
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymd. phospholipid vesicles as membrane-mimetic surfaces for biocompatible biomaterials)

L22 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1971:437118 HCAPLUS
DOCUMENT NUMBER: 75:37118
TITLE: Study of the effect of mechanical working on the rheological properties of some potential artificial lubricants for human ***joints***
AUTHOR(S): Younes, M. A. M. A.; Walker, P. S.; Seller, P. C.; Dowson, D.; Wright, Verna
CORPORATE SOURCE: Bio-Eng. Group Study Hum. **Joints**, Univ. Leeds, Leeds, UK
SOURCE: Rheologica Acta (1971), 10(1), 21-7
CODEN: RHEAAK; ISSN: 0035-4511
DOCUMENT TYPE: Journal
LANGUAGE: English

AB As an artificial synovial fluid lubricant in human ***joints*** , **poly(ethylene oxide)** is unlikely to be successful in vivo over a long period, probably due to weak bonding, and ease of mech. degrdn. Na CM-cellulose, however has a high degree of resistance to mech. degrdn. and a configuration with less exposed bonds.

TI Study of the effect of mechanical working on the rheological properties of some potential artificial lubricants for human ***joints***

ST lubricant plastic synovial; ***polyethylene*** ***oxide*** synovial lubricant; carboxymethyl cellulose synovial lubricant; rheol synthetic synovial fluid

IT Synovial fluid
(artificial, cellulose carboxymethyl ether sodium salt and ***polyethylene*** glycol as)
IT ***Prosthetic*** materials
(cellulose carboxymethyl ether sodium salt and ***polyethylene*** glycol, as synovial fluid substitute)
IT Lubricants
(for human ***joints*** , cellulose carboxymethyl ether sodium salt and ***polyethylene*** glycol as, evaluation of)
IT Rheology
(of cellulose carboxymethyl ether sodium salt and ***polyethylene*** glycol synovial fluid substitutes)

L27 ANSWER 2 OF 3 MEDLINE on STN
ACCESSION NUMBER: 96420325 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8823024
TITLE: Injectable cartilage using ***polyethylene*** ***oxide*** polymer substrates.
AUTHOR: Sims C D; Butler P E; Casanova R; Lee B T; Randolph M A; Lee W P; Vacanti C A; Yaremchuk M J
CORPORATE SOURCE: Division of Plastic Surgery, Massachusetts General Hospital, Boston, USA.
SOURCE: Plastic and reconstructive surgery, (1996 Oct) 98 (5) 843-50.
Journal code: 1306050. ISSN: 0032-1052.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199611
ENTRY DATE: Entered STN: 19961219
Last Updated on STN: 19980206
Entered Medline: 19961104

AB This study demonstrates that ***polyethylene*** ***oxide*** gels, which are biocompatible and biodegradable synthetic polymers, can be utilized for the encapsulation of isolated chondrocytes and maintenance of three-dimensional spatial support for new tissue development. Chondrocytes isolated from the glenohumeral and humeroradioulnar ***joints*** of a calf were added to a 20% ***polyethylene*** ***oxide*** solution in Ham's F-12 medium to generate a final cellular density of 10 x 10(6)/mL. The polymer-chondrocyte constructs were injected through a 22-gauge needle in 500-microliters aliquots subcutaneously in 12 nude mice and incubated for 6 and 12 weeks in vivo. Histologic and biochemical analyses including deoxyribonucleic acid and glycosaminoglycan quantitative analyses confirmed the presence of actively proliferating chondrocytes with production of a well-formed cartilaginous matrix in the transplanted samples. Control specimens from eight implantation sites consisting of chondrocytes alone or ***polyethylene*** ***oxide*** substrates did not demonstrate any gross or histologic evidence of neocartilage formation. These findings demonstrate the potential use of an injectable and moldable polymer substrate that can support cell proliferation and matrix synthesis after subcutaneous transplantation for neocartilage generation. The use of functional biologic tissue substitutes may serve as an alternative solution to current methods of augmentation or reconstruction of structural craniofacial contour deformities.

TI Injectable cartilage using ***polyethylene*** ***oxide*** polymer substrates.

Animals
Biocompatible Materials
*Cartilage: CY, cytology
Cells, Cultured
Extracellular Matrix: SE, secretion
Feasibility Studies
Glycosaminoglycans: AN, analysis
Mice
Mice, Nude
****Polyethylene Glycols***
****Prostheses and Implants***

CN 0 (Biocompatible Materials); 0 (Glycosaminoglycans); 0 (***Polyethylene*** Glycols)